CHAPTER 1
INTRODUCTION

1.1. Background

The COVID-19 pandemic became news that shocked the world in February 2020. This pandemic does not only affect the country of Indonesia, but all countries in the world. Covid-19 provides losses in various aspects, this pandemic has taken many victims very much. Below is an overview of Covid in Indonesia in February 2021 showed on Figure 1.1.

Figure 1.1 Shows Covid in Indonesia

One way to solve this problem is to break the chain of distribution. What can be done is the implementation of health protocols, which can encourage the use of masks when outside the home. However, not everyone adheres to health protocols.

Many people underestimate the use of masks. Therefore, the author and the PKM team created a tool to detect violations of health protocols purposed to cut the spread of covid-19. This tool can be mass-produced and can be distributed to be installed in crowded places. With this tool, if anyone violates the health protocol, a warning will be given which will have an impact on reducing the number of COVID-19.

1.2. Problem Formulation

The problem formulation raised in the PKM-KC program is :

1. How to integrate an articial intelligence system during the Covid-19 pandemic to detect violations of the health protocol using masks.

2. How is the performance of the SSD algorithm for the mask violation detection system?

1.3. Scope

In this project, the author and the PKM team made a tool to detect health protocol violations of masks.

1. This system uses the Single Shot MultiBox Detector (SSD) architecture.
2. This system is able to detect violations of health protocols using masks.
3. This system is only able to detect the use of masks in a bright room.

1.4. Objective

The aim of this project is to test the performance of the SSD algorithm to detect health protocol violations in the use of masks.